THE GENESEE FARMER.

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THE FARMER.

SATURDAY, MAY 11, 1833.

BUTTER

Is one of the staple productions of our state; and every hint that serves to improve its quality, or increase its quantity, must be useful. There are various methods of making butter, as from new milk, lobbered milk and cream; and there is certainly a great diversity in its quality. The cause of this difference may partially be owing to the season, the feed and the breed of cows, but most is owing to bad management. Our dairy women are very much like their good husbands, apt to be somewhat conceited, too wise to learn, and generally believe their own mode the best, and never suspecting that philosophy or science can have any sort of connection with this humble branch of household labor. All seem to be agreed, however, upon the following points:

1. That cleanliness is the first requisite, for many and very obvious reasons.

2. That every sort of liquid should be separated from the butter—because if such is suffered to remain it soon becomes rancid, and taints the mass.

3. That the salt used to preserve it should be pure, because bad salt will not keep it sweet—rock salt, and that produced by solar evaporation, being deemed best.

4. That no more salt be used, than is necessary to render the butter palatable—all excess being injurious to the taste, and an imposition upon the buyer.

5. That the vessel in which it is packed should be incapable of imparting to it any bad flavor—wood abounding in pyrolignic acid, and red earthen being improper—the first giving a bad taste, and the latter, by reason of the decomposition of the glazing, which contains lead, being in a measure poisonous.

6. That when packed, the external air should be wholly excluded from the butter—because the air soon induces rancidity.

My dairy woman has added two other rules, which she deems all important to the preservation of *good* butter, but which I am induced to think are but little known and less practiced, viz:

7. That no water be suffered to come in contact with the butter in any stage of the process—because it tends to lessen the essential volatile matter which gives to butter its rich peculiar flavor.

8. To have the salt incorporated with the butter in the first operation of working, and after an interval of twenty-four hours, to apply again the butter ladle until the whole of the liquid is expelled. By this operation the salt is dissolved and effectually blended with the butter, which is freed more effectually from buttermilk.

I sat down to write merely an introduction to two tables, which I am about to copy, and which indicate the temperature at which cream may be most advantageously wrought into butter. It may be said that these will serve but little purpose, as a thermometer is seldom seen in a dairy house; yet it will show the importance of keeping one. A thermometer will cost two dollars, and I apprehend that its advantages will soon repay cost, in the dairy alone.

The Highland Society of Scotland offered a premium on experiments on the temperature at which butter can be best procured from cream. The following tables show the result of a part of these experiments. The detail may be found in vol. VII. of the Society's transactions, p. 194 to 201.

No.	Date of experiments.	No of gallons.	Mean temperature.	Time occupied in churning.	Quantity of butter obtained.	Quantity of the churned milk.
1	1825. Aug 18.	15	55°	h. m. 4 0	lb oz dwt 1 15 7.5	lb. oz. 8 9
2	26	15	60°	3 15	1 15 3.2	8 8
3	30	15	62°	3 0	1 14 0	8 8
4	Sep. 4	15	64°	3 1	1 12 12.7	8 8
5	9	15	70°	2 30	1 10 10.6	8 7

OBSERVATIONS.

"The butter produced in the first experiment, was of the very best quality, being rich, firm and well tasted.

The second experiment yielded butter of a good quality, and not perceptibly inferior to the former.

In the third experiment butter of a good quality was obtained, but of an inferior consistency.

The fourth experiment produced soft and spongy butter.

The butter produced in the 5th experiment was decidedly inferior in every respect to any of the former specimens."

No.	Date	Heat of the cream	Scotch pints of cream	Degrees of heat when butter came	Qu. of butter 16 oz to lb	Time of churning	Weight of cream	Heat of air at 8 P M
1	Ju n 13	56	16	60°	16lb 8oz	1½ h'r	4to pt	56°
2	" 20	52	16	56	16 lbs	2hours	do	52°
3	" 24	52	16	56	16 lbs	2hours	do	52°
4	July12	63	16	67	15 lb 8oz	30 min	3 " 14	70°
5	Oct 20	50	16	53½	15lb12oz	3hours	4 " 1	50°
6	Au. 20	53½	16	57½	16lb 5oz	1h15m	4 lbs	

No. 1, shows the greatest quantity of butter produced by the above heats.

No. 2, the best quality of the buttter.

No. 3, the fine flavor and quality of this butter could not be surpassed.

No. 4, the quality soft, white and milky.

No. 5, quality injured by long churning.

No. 6, quality most excellent, high in color and flavor, and solid as wax.

From the experiments, as shown in both tables, it would appear, that the proper temperature at which to commence churning butter, is from 50 to 55°, and that at no time in the operation ought it to exceed 65°, or fall below 50°.

HORTICULTURE.

We percieve an increasing liberality of opinion among our farmers on the subject of gardens, and more especially of flower gardens. This is in the exact order of nature. The adventurous yeoman who pitches his tent in the wilderness, will be engaged in more important concerns than cultivating flowers, necessity being the first law. The forest must be subdued; provisions for his family, and fodder for his cattle, must be provided; and when after his crops are secured by good fences, and the winding path among the trees, is deserted for the regularly laid out highway, there are houses and barns to build, and to pay for, before the frugal husbandman allows himself much of the luxury of congregating the beauties of nature. Ornamental gardening belongs to the last class of RURAL IMPROVEMENT. "When ages grow to civility and elegancy," says Chancellor *Bacon*, "men come to build *stately* sooner than to garden *finely*, as if gardening were the greatest perfection."

When we have heard, therefore, the question in reference to flowers, 'What are all these things good for?' expressed in the tone of indifference or contempt, it has excited in us no surprise. Many of our farmers have carved out their own fortune with hard hands. Habits of frugality so long persevered in, continue, in men of a more rigid fiber to operate when the necessity no longer exists; and like the planetary bodies, they retain their *momentum*, and roll on in their old orbits. Of such however, (whom we think are only a small minority,) we will take the liberty to ask in turn, What is any thing good for, but as it conduces to our pleasures and our comforts? Objects may give us pleasure which we neither eat nor sell; and those who are the *most saving*, indulge in many such luxuries. We wish them to reflect a little more on this subject; and if their wives or daughters want flowers in the garden, indulge them—it will cost but little, and may gild many a leisure moment.

Our main object however, at present, is to recommend the kitchen garden; and to induce our farmers to raise a greater variety of good things for their tables. Cabbage, and potatoes, and beets, and parsneps, are all excellent,—we could by no means do without them,—but some kinds of cabbage are better than others, as well as some kinds of beats, or of potatoes. Try different kinds and find out the best. Differences of taste render it proper that each should examine for himself.

A few years ago cauliflower and brocoli were very rarely cultivated in the Genesee Country; and we remember to have heard the idea advanced that none but a skillful gardener could produce them. It is not so—they require no more skill than cabbages do. Our first attempt at growing them, happened in an old barn-yard, where manure was most plentifully mixed with the soil, and our success was eminent, for plants of this kind, are *coarse feeders*. Many of our neighbors had never seen such things; but from that time down to the present, these have ranked among our *indispensables*.

We must bring our introduction to a close however, in order to make room for the following par

agraph, taken from the Memoirs of the Philadelphia Society for promoting Agriculture, Volume 4. It was from the pen of Judge PETERS, and appears in the Index.

"HORTICULTURE: Is mentioned, not for reference, but most serious regret. No communications appear in our volumes on this subject. And yet the management of a KITCHEN GARDEN, as it is called, is of the first importance to every farmer; and is most lamentably neglected. Few of our farmers sufficiently attend to their gardens; and too many neglect them entirely. If more vegetable food, and less flesh, were consumed on our farms, the more health and comfort would be the results. Nor would economy in our domestic affairs, be found the smallest consideration. The cheap luxury of garden fruits and vegetables, the innocent employment of time, and the health insured by them, ought to be incentives to a most careful and intelligent attention to their culture."

VERNAL FLOWERS.

[From a letter to the Publishers, April 29.]

In the last fortnight, we have had several returns of severe weather: cold winds, sharp frosts, ice on vessels of water, and frozen ground; but it all has not prevented a change of flowers. The mezereon (*Daphne mezereum*) was in full bloom, soon after the date of my former letter. This was succeeded by the trumpet-major Narcissus, the grand Monarque Narcissus, the Duke Van Thol Tulip, the double Daisy, some varieties of *Primula*, and numerous varieties of the common hyacinth. These are some of our FINEST FLOWERS for the first half of the month.

Of *mezereon* there are two varieties, the white and the pink colored. I have had both, but lost every one that was not shaded from the hot afternoon sun, though some gardeners have succeeded better. Mine is now well sheltered on the south and south west, and is in a flourishing condition. When I pass it, I am reminded of Cowper's characteristic sketch:

——————"Mezereon, too,
Though leafless, well attired, and thick beset
With *blushing wreaths* investing every spray."

Though the flowers are fragrant, and perhaps not deleterious, yet the berries are poisonous: twelve grains killed a young woman immediately; but this quality can form no proper objection to the cultivation of this elegant shrub.

The trumpet major is *our* earliest Narcissus; and the Grand Monarque is very beautiful, the leaves of a deep green, contrasting finely with its white petals and sulphur-colored cups. Ours have had only from five to eight flowers on a stalk, though Lindley mentions sixteen as the common number. It is marked as a distinct species, (*N. floribundus.*)

The daisy (*Bellis perennis*) is remarkable for its delicacy. It has passed into several varieties both of form and color; but all that I have seen cultivated in this country are double, although the single variety, the

"Wee modest crimson-tipped flower"

of Burns would be right welcome to a place in my garden, if I knew where to procure it. The daisy abides over winters without damage under a cap of moss, and thrives best in summer under the north side of a wall.

The Duke Van Thol tulip is considered a distinct species (*Tulipa suaveolens*) but is scarcely distinguishable in its botanical character from the common tulip (*T. gesneriana*). We have a double variety of the Van Thol, which is not so early.

The common tulip has run into multitudinous varieties; and some are several weeks earlier in their flowering than others. We have one kind which opened on the 15th instant.

The hyacinth, like the tulip, has run into varieties without number. Its primitive color is supposed to be blue, but pure white, yellowish white, and white and red, also occur. Of the last colors, is *Amelia Galotti*, one of the earliest sorts; and *La Fidele* also double, also reddish, and a little later. The hyacinth to be very fine requires a richer soil than the tulip.

The English cowslip, the primrose, and the polyanthus include some beautiful varieties, and several have originated in my garden well worth the attention of florists. All bear the winters of the Genesee Country in the open ground, except in very loose moist soils, which sometimes allow the roots to be drawn out by the frost. The best time to increase them by division, is soon after they have done flowering, provided they can be partially shaded from the hot sun.

HINTS TO FARMERS--No. VIII.

Offices are created for the public, not for the incumbents. They nevertheless constitute fruitful rewards to merit; and, when spontaneously conferred, are among the highest honors that a free people can bestow. To *deserve* them is worthy of your ambition; but to *depend* upon them, as a means of livelihood, would be unreasonable and unwise, if not dangerous. A thirst for office is almost as bad as a thirst for rum. The more either are indulged the more craving they become. Every repetition of the potion but begets new desires, until, finally, the passion, in one case, terminates in *delirium tremens*, and, in the other, in *delirium candidatum*. I have known many a worthy man ruined in his usefulness and in his fortune, by this latter disease, and ultimately terminate his career under the complicated horrors of both maladies.

In selecting your public agents, adopt the same caution that prudence would suggest in your private affairs: choose those who are acquainted with the business in which you mean to employ them,—who know your wishes and your interests,—who have an established reputation for integrity, and who have shown an ability to manage a public trust, by having conducted creditably and successfully their private affairs. Such men possess civil virtues, and merit civil rewards. But distrust the man who reiterates his importunities for your vote or your influence, as wanting either good habits or good principles. The first should render him independent of public aid, and the last should make him ashamed to ask for it.

Are we then to reject, as the bane of our happiness, the honors and emoluments of office? No; accept them, when proffered, as a mandate of duty, not as a source of wealth; as a compliment to your merit, and as the requital of an obligation which you owe to society. Accepted in this spirit the duties will not seem onerous, nor the emoluments worthy your exclusive regard. And when you have enjoyed the honors, and fulfilled the duties, abandon neither your politics nor your religion, because your fellow citizens happen to discover in your neighbor qualities and merits equal or superior to your own. The spirit of a free government forbids monopoly. Whether they impose a duty, or confer honor or profit, offices should be shared by those who are capable and worthy; and I do not know of a more salutary provision which would be engrafted on our constitution, than that which has been thrice forcibly recommended by our illustrious President, to limit the tenure of office to some definite period of time.

I will close this number with the history of a schoolmate:—*Job Allerton* commenced life under the most flattering auspices. His farm was a pattern of neatness—fields well cultivated, cattle in fine order, and fences and buildings in good repair. Job owed no man, and had accumulated a fine sum at interest. His children were growing up under their parent's example in habits of industry, and promised to become respectable in society. Every thing throve under his care, and he was pointed to by all as the best farmer in the town of S. His good qualities, and the influence which these procured him, at length brought him into political notice, and he became a successful candidate, very much against his will, for the Assembly. He returned from Albany in the spring, with some new notions, but the habits of the farmer still predominated. To a second nomination Job had less objection, nay, he secretly intrigued for it, for he thought, as he remarked, he was *then* qualified to do some good. The second triumph, and the consequence it gave him at the dinners and parties in the renowned capital turned his head, and he came home quite an altered man. It was no longer "*Come, boys,*" with him. Politics engrossed his whole attention. He became a standing candidate for every office that presented; and was in succession—sherif, senator, and member of congress.

In the mean time the farm began to show the absence of the master; the fences were prostrate, the cattle neglected, and the buildings verging to ruin. The boys too, as boys ever will, aped the father, began to strut the gentleman, and to look up for office and dignities. As industry departed prodigality entered, and soon wasted the frugal earnings of former years. At length the illusion vanished. Allerton found himself deeply in debt, without means *and without office*, with an indolent, extravagant family to support. Offices had ruined him. In his distress he mustered resolution to do what hundreds have failed to do, and who have done worse. With the wreck of a former competence, he pulled up stakes, and leaving behind him his official habits and official pride, fled to the wilds of Indiana, where I am happy to say, he has resumed again the habiliments of the farmer, and is profiting by the lessons of experience.

Who is there that among his acquaintance does not recognize a Job Allerton? B.

THE HORSE.

THE GLANDERS—NO. I.

To exemplify the merits of the work to which I have often alluded, and from which I have made occasional extracts, to wit: "The Farmer's Series of the Library of Useful Knowledge," I will occupy two numbers of the Genesee Farmer, with the subject of the *Glanders*. This disease, though so well known among the horse dealers in this country, is the subject of constant quackery among our ignorant farriers; and there is hardly a wiseacre among them, who does not pretend that he has a sovereign remedy for this lothsome disease. And I would here remark, that the veterinary science, in this country is most lamentably neglected, and that those who do pretend to a

knowledge of farriery, are generally mere *pretenders.* Quackery, in relation to any science is fraught with innumerable evils, but more especially so when through its agency, human life, or that of any valuable animal, is endangered. In reference then, to the health and vigor of our domestic animals, it becomes doubly important that every farmer should make himself fully acquainted with their structure and diseases. I propose in these two numbers to extract the *whole* of the article on the subject of glanders, not only for the information conveyed, but that the reader may understand the merits of the work in question. After a full and anatomical description of the head, face, mouth and nose, the work dilates upon their respective diseases; and in reference to the nose mentions the following; nasal gleet, glanders and farcy.

"The most formidable of all the diseases to which the horse is subject, is GLANDERS. It is described by writers fifteen hundred years ago, and it was then and is now, not only a lothsome, but an INCURABLE DISEASE; we shall therefore principally confine ourselves to the consideration of its symptoms, nature, causes, prevention, and degree of contagion, and these will afford much matter of interest to the farmer.

"If we could obtain an authentic history of the glandered horse, we should find that in the majority of instances, if the disease were bred in him, he had been dull, off his feed, losing flesh, and his coat staring; and that these appearances had for several weeks preceded the characteristic symptoms of glanders. These symptoms, however, may lead to, or be the causes of other diseases, or they may pass away, and the horse return to perfect health. That which would be considered as the earliest, and unquestionable symptom of glanders, would be an increased discharge from one or both nostrils; different from the discharge of catarrh, because it is usually lighter and clearer in its color, and more glutinous or sticky. When rubbed between the fingers it has, even in an early stage, a peculiar, clammy feeling. It is not discharged occasionally and in large quantities like the mucus of catarrh, but it is constantly running from the nostril.

"It is a singular circumstance, for which no satisfactory account has yet been given, that when one nostril alone is attacked, it is in a great majority of cases, the near or left nostril. M. Dupuy, the director of the veterinary school at Toulouse, gives a most singular account of this. He says that out of eight hundred cases of glanders that came under his notice, only one was affected in the right nostril.

"This discharge, in cases of infection may continue, and in so slight a degree as to be scarcely perceptible, for many weeks or months before the health and capabilities of the horse seem to be injured. It will remain for a long time almost transparent, yet gluey; and then it will begin to be mingled with pus; retaining however its sticky character, and being rarely offensive in the early stages. The constant flow of this secretion, and its stickyness, with the absence of cough either before or during the discharge will be the only symptoms. In process of time however, pus mingles with the discharge and then another and a characteristic symptom appears. Some of this is absorbed, and the neighboring glands become affected; and if these be discharged from both nostrils, the glands within the under jaw will be on both sides enlarged. If the discharge be from one nostril only, the swelled gland will be found on that side alone. Glanders however, will frequently exist at an early stage without these swelled glands, and some other diseases, as catarrh, will produce them. Then we must look out for some peculiarity about these glands, and we shall readily find it. The swelling may be at first somewhat large and diffused, but the surrounding enlargement soon goes off, and one or two small distinct glands remain; and they are not in the center of the channel, but *adhere closely to the jaw on the affected side.*

"The membrane of the nose may now be examined, and will materially guide our opinion. It will either be of a dark purplish hue or almost of leaden color, or of any shade between the two; or if there be some of the redness of inflammation, it will have a purple tinge: but these will never be the faint pink blush of health, or the intense and vivid red of usual inflammation. Spots of ulceration will probably appear on the membrane covering the cartilage of the nose—not simply sore places, or streaks of abrasion, and quite superficial, but small ulcers usually approaching to a circular form, deep, with the edges abrupt and prominent. When these appearances are observed, there can be no doubt about the matter. Care should be taken, however, to ascertain that these ulcers do actually exist, for spots of mucus adhering to the membrane have been more than once taken for them. The finger should, if possible, be passed over the supposed ulcer, to determine whether it can be wiped away; and it should be recollected, as we have always hinted when describing the duct that conveys the tears to the nose that the orifice of that duct, just within the nostril, and on the inner side of it, has been mistaken for a cancerous ulcer. This orifice is on the continuation of the common skin of the muzzle which runs a little way up the nostril, while the ulcer of glanders is on the proper membrane of the nose above; and the line of separation between the two is evident on the slightest inspection.

"It is proper to state that this discharge has continued unattended by any other disease, or even by ulceration of the nostril for two or three years, and yet the horse was decidedly glandered from the beginning, and capable of propagating the malady.

"When ulcers on the membrane of the nose have appeared, the constitution will be evidently affected. The horse will lose flesh; his belly will be tucked up; his coat will be unthrifty and readily come off; cough will be heard; the appetite will be impaired; the strength will fail; the discharge from the nose will grow more purulent, discolored, bloody and stinking; the ulcers in the nose will be larger and more numerous; and the air passages being obstructed, a grating, choking noise will be heard at every act of breathing. The lungs are now diseased; they are filled with tubercles or ulcerations; and the horse at length dies, an emaciated and lothsome object.

"The symptoms frequently vary, and to a most puzzling degree. The discharge will be so slight as scarcely to be perceived, and known only by its stickings; and the glands will not be in the least degree enlarged. At other times a very small enlarged gland may be found, adhering to the jaw, and may be stationary month after month, and the surgeon may be told that there has never been discharged from the nose. He will however, be wrongly informed, for it has most assuredly existed, although, perhaps to no great degree, at some former period, and he will generally without much difficulty discover it then, although perhaps in so small a quantity that the groom will deny its existence; and he will principally satisfy himself with respect to it, by its gluey feeling.

"Glanders have often been confounded with *strangles*, and by those who ought to have known better. Strangles are peculiar to young horses. The early stage resembles common cold, with some degree of fever and sore throat; generally with distressing cough, or at least frequent wheezing; and when the enlargement is beneath the jaw, it is not a single small gland, but a swelling of the whole of the substance between the jaws; growing harder towards the middle; and after awhile appearing to contain a fluid and breaking. In strangles the membrane of the nose will be intensely red, and the discharge from the nose profuse and purulent, or mixed with matter almost from the first; and when the tumour has burst, the fever will abate, and the horse speedily get well.

"Should the discharge from the nose continue for a considerable time after the horse has recovered from strangles, as it sometimes does, there is no cause for fear. Simple strangles need never degenerate into glanders. Good keeping, and small doses of blue vitriol given internally will gradually make all right.

"Glanders have been confounded with catarrh or cold, but the distinction between them is plain enough. Fever accompanies cold, and loss of appetite, and sore throat; the discharge from the nose is profuse and perhaps purulent; and the glands under the jaw, if swelled, are moveable, and there is a thickening around them, and they are tender and hot. With proper treatment the fever abates; the cough disappears; the swellings under the throat subside, and the discharge from the nose gradually ceases, or if it remain, it is usually very different from that which characterises glanders.

"A running from the nose, small in quantity, and from the smallness of its quantity drying about the edges of the nostril, and so presenting some appearance of stickiness, will in a few cases remain after severe catarrh, and especially after the influenza of spring; and these have gradually assumed the character of glanders, and more particularly when they have been accompanied by enlarged glands and ulceration in the nose. Here the aid of a judicious veterinary surgeon is indispensable: and he perhaps will experience considerable difficulty in deciding the case. One circumstance will principally guide him. No disease will run on to glanders, which has not, to a considerable and palpable degree, impaired and broken down the constitution; and *every disease that does this will run on to glanders.* He will look then to the general state and condition of the horse, as well as to the situation of the glands, the nature of the discharge and character of the ulceration.

"The history we have given of the symptoms of glanders will pretty clearly point out its nature. It is an affection of the membrane of the nose. Some say it is the production of tubercles, or minute tumors in the upper cells of the nose, which may long exist undetected, and hard to be detected except by a scarcely perceptible running from the nostril, caused by the slight irritation which they occasion. These tubercles gradually become numerous; they cluster together, suppurate and break; and small ulcerations form. The ulcers discharge a poisonous matter, which is absorbed, and taken up by the neighboring glands, and which with greater or less rapidity vitiates the constitution of the animal, and is capable of communicating the disease to others. Other surgeons content themselves with saying that it is an inflammation of the membrane of the nose, which may assume an acute or chronic form, or in a short time, or very slowly, run on to ulceration.

"The malady proceeds as we have already described it, but before its termination, becomes connected with farcy. Few horses die of glanders without exhibiting some appearance of farcy; and farcy in its latter stages is almost invariably accompanied by glanders; *they are different forms or stages of the same disease.*

"There can be no doubt that the membrane of the nose is the original seat of glanders; that the disease is for a time purely local; that the inflammation of the tubercles must proceed to suppuration before the matter is formed on which the poisoning of the constitution depends; that the whole circulation does at length become empoisoned, and that the horse is destroyed by the general irritation and disease produced." QUERCUS.

THE FARMER'S JOURNAL.

We gladly welcome this journal as adjunct in the good cause to which we are devoted. We have received the first number (for April.) It is published at Rutland, (Vt.) by Maxham and Tuttle—is neatly printed on a large sheet, quarto form, and is to be continued monthly at $1,00 per year. This number is well filled with a variety of interesting matter, both original and selected; and gives good evidence of the ability of the editors to render it well worthy of the patronage of the hardy sons of the mountain state, to whose fostering care we commend it, with the assurance that all they bestow upon it will be returned to them with liberal interest.

PRACTICAL HINTS.

Young says, "the undevout Astronomer is mad." This remark, may well be applied to the Farmer and Botanist. The plants we cultivate, disclose to the enlightened mind, a thousand wonders unobserved by the ignorant. They open a field for rational contemplation and innocent pleasure, well fitted to improve the understanding, to refine the feelings, and to elevate the soul to a holy intercourse with our Maker.

God may be seen in the garden and in the field; and here we may walk with him, as well as in the sanctuary. The farmer, who is unobservant of these things, and pursues his labor without ever raising his thoughts to the Author of all good, loses the richest and noblest pleasure, which his employment affords.

My present object is to make a few remarks on Vegetable Physiology, which have been a source of pleasure and profit to myself, and possibly may be to others.

In our fields of corn, we behold the blade ascend, and the ears fill with grain; and in the course of a single season, several tons, on a single acre, are elevated above the surface; and in our forests, where this process has been going on for a succession of years, we behold hundreds of tons, thus raised particle by particle from the earth. Here is an exhibition of power, which invites our investigation, and the inquiry naturally arises how this matter is elevated.

Some may say that it is alone by the immediate power and agency of God, by a kind of continued creative effort. But God, so far as we can observe, operates by second causes, or through the instrumentality of means, and to refer the matter to the immediate power of God, leaves the matter unexplained.

Another says, vegetables are expanded and elevated by *capillary attraction*, that is by the attraction which causes fluids to ascend in a sponge or a heap of ashes. But water will never ascend in a sponge higher than the upper surface, and by this power, it is obvious that a vegetable could never ascend above the surface of the earth, or suppose it to have attained a given hight, it could never rise higher.

We must therefore look for some other power continually exerted to push the plant upward to its destined elevation. This power we find in *heat* by reason of its expansive influence on fluids. The sap is supposed to ascend through the pores of the plant, as the mercury ascends in the tube of the thermometer, by the expansive power of heat.

The whole alburnum, or white part of the wood of a tree next the bark, consists of an aggregation of pores or small tubes closely combined; and the heat which expands the ascending fluid, contracts the tubes in which it ascends. The solid part of the tree is indeed expanded, and the obvious effect of this will be to contract the cavities of the tubes which it contains. If the tube and the ascending fluid were expanded alike, there would be no ascent of sap.

That sap ascends, and the plant is expanded and pushed upwards by the expansive power of heat, is fully confirmed by the experiments of Mr. Hales.

This gentleman after cutting off grape vines, closely fitted upon the stumps, glass tubes. In these, as soon as the morning sun began to give its warmth, the sap began to ascend, and continued to ascend through the day till the heat began to abate, when it again subsided in the tubes. When a cloud obscured the sun, it would sink. Those tubes which were placed many feet above the earth, sent up the sap much higher than those which were placed near the earth. The reason evidently was, that the former had a length of body admitting of a greater expansion than the latter.

From these facts we see the wisdom and goodness of God, in the alternations of cold and heat. In the heat of the day the sap ascends and sends up the stalk; at night the sap descends, and the earth, being warmer than the superincumbent air, the sap is propelled through the roots and causes their growth and expansion.

In the cold and wet seasons, which we sometimes have in May and June, the blades of corn turn yellow and their growth is apparently checked. This I formerly witnessed with some impatience, but I have become quite reconciled to it, from the belief, that while the growth of the blade is checked, the root is growing with perhaps unusual rapidity.

Without an interchange of cold and heat, vegetation is feeble and sickly. Moist and hot weather we know is favorable to vegetation; but when this is long continued, the stalks of grain become feeble and tender—hardly able to bear their own weight.

I remember well such a season, when flax and oats, which for a while gave unusual promise, afterwards fell by their own weight and gave a very indifferent crop. Such was the effect of long continued hot weather on the wheat crop in 1831.

The stalks and roots of plants act reciprocally upon each other. The root sends up sap to nourish the stalk, the stalk returns the sap to nourish the root. The seed when committed to the earth first sends forth the root, and the root, when it has attained a moderate extent, returns the sap to send forth the blade.

In our perennial plants and trees, the root is the reservoir for the future growth. By the growth of the summer the powers of the root are exhausted; and again by the descending sap of autumn the root is replenished.

Hence we see why a too liberal pruning, when the foliage is in its greatest vigor is injurious. It deprives the root of its resources.

Hence we see also, why our cultivated grasses are sometimes injured, when mowing is immediately followed by close feeding the after growth. The root is injured because its exhausted energies are not renewed by a subsequent growth.

Those grasses are most injured by mowing and feeding, whose leaves are chiefly upon the stalk, as timothy and red clover. Those are least injured whose leaves spring chiefly from the root, for instance spear grass, red top and white clover. These latter grasses, having their leaves near the ground, cannot be so much injured by the scythe and feeding, but that they will survive while other grasses die.

I very much question, whether good policy would justify our suffering an animal to go into our mowing lots, except to remove the hay. At any rate they should not be put in, till late in October, when the after growth has attained full size, and the roots of the grass are replenished.

Hence also we see, why bushes and weeds may be killed by cutting, when their vegetation is most perfect. Bushes should be cut in the latter part of August before the descending sap of autumn begins to replenish the root, that is, just before the commencement of cold nights when the leaves begin to turn yellow. Weeds should be cut just before the seed comes to maturity. The Canada thistle, if cut at this time, and the subsequent growth prevented, is as easily subdued as any other plant. Repeated experiments justify me in this assertion.

The roots of esculent plants, such as beets, turneps, onions and potatoes, it is well known, recieve their growth from their tops. The unripe onion continues to grow for weeks after it is pulled. Potatoes of considerable size may often be found growing out of the stalk, when it has been pulled and laid upon the ground in its unripe state.

We also hence learn the impolicy of cutting the tops from corn before it ripens. The trifle you gain by cutting them, you take from the ripening ear. I once cut a few hills when the green corn was just fit for cooking. The grain apparently grew but very little afterwards, and shrunk to half its size.

I throw out these hints, hoping that some more able pen will give us a more full and perfect account of the vegetable economy.

Pittsford. E. D. ANDREWS.

Agricultural Improvement---No. 2.

AGRICULTURAL SOCIETIES.

In a former number I endeavored to show that the improvement of agriculture and the present generation of operators was to be effected, or an impulse given to produce that effect, firstly, by the distribution of agricultural papers. I shall now endeavor to show that it is to be accomplished, secondly, by the formation of agricultural societies. That the united exertions of an organized body can accomplish more and bring about results sooner than that of individuals, is a position that will probably not be controverted. Else, why do men associate to promote the great objects of benevolence and humanity? Why are associations formed for the distribution of the Bible? Why have we Missionary, Colonization and other Societies? Why is the world moved as it were in a body, on the great and important subject of Temperance? Who, but believes, that more has been done within the last five years, towards destroying and ridding the world of that Hydra, Intemperance, by the formation of national, state, county and town societies, than could have been accomplished in half a century, by the insulated exertions of humane and philanthropic individuals? Organized associations, act as a grand lever upon public opinion, which must be moved before any great public object can be accomplished. Why not then, if we gain so much power, and so great an advantage is to be derived from them—encourage and establish societies for the promotion and improvement of agriculture and the mechanic arts? None will deny their importance—none their need of improvement. Let societies then be formed in every state in the Union, in every county in each state. Let them be managed principally by practical farmers. Hold out inducements to excite a spirit of inquiry, and of emulation in all the various branches of husbandry, and the mechanic arts. Let our farmers associate and interchange sentimen

—let each profit by the experience of all the rest, and soon the face of the country will be changed —soon will our productive valleys double their increase—our barren plains become fertile, and the "wilderness blossom as the rose." Nor will its effect be less visible upon the moral and intellectual state of our yeomanry. The first and best employment of man, will soon be regarded as honorable and pleasant, as it has been wont to be considered menial and slavish. Mind will range the sylvan scene, and men's highest ambition will be to excel in the application of science and the production of successful results. Honor's alluring wreath will encircle the brow of him who shall produce the greatest results with the least expense. Improvements in the implements of husbandry will follow. Labor saving machinery, be introduced and adopted. The mind will aid the hand, and our country exhibit one continued scene of improvement, happiness and prosperity.

But there are no doubt many who will say these are the dreams of a visionary—the vagaries of a wild and distempered imagination. In answer, I say let me call your attention to those countries in Europe where agriculture is patronized, and where societies are formed for its promotion. Turn your eyes to those districts in our own country where societies have been established, and compare them with those that have none —are not the same results produced as above stated?—The moral and intellectual condition of the people improved—the state of agriculture from thirty to fifty per cent. advanced—and the value of the soil correspondingly enhanced. Our state society has been organized but a year, and already do we see and feel its influence—its branches are extending far and wide. Jefferson county has long had her society, as her improvements bear ample testimony. Oswego, Monroe, Onondaga, Saratoga, Columbia, Clinton and Essex have recently organized societies, and I hope the day is not distant when every county in this state at least will do likewise. Let us go on then heart and hand, put our shoulders to the wheel and forward that which tends to so much usefulness. Let us emulate those that have preceded us in disseminating knowledge—ameliorating the condition of man—and spreading the blessings of Providence in such profusion. VOLO.

Rensselaer county, April 23, 1833.

QUINCE TREES.

MESSRS. EDITORS—In the 1st vol. page 380, of the Genesee Farmer, I noticed an article on the subject of injury, and final destruction, of Quince trees by worms. For the benefit of your correspondent and all others concerned in cultivating the Quince, I will give the result of actual experiment.

In the spring of 1823, I procured some trees of the Orange or Apple Quince, and set them in rather moist rich soil. They all lived, and as they were of a good size, soon commenced bearing. I saw an article in some work, recommending coal dust, or the dirt from the bottom of a coal pit, to be put around Quince trees. I tried the experiment, and it succeeded equal to my most sanguine expectations. While my trees were doing well, a neighbor suggested the plan of manuring trees, and (like the man who was well, but took medicine to be better,) I manured my trees, but not long after discovered worms or grubs in them, near the top of the ground, and in cutting them out, injured the trees so much that they all died but one, and that is a poor sickly one.

Thenext year, 1824, I set other Quinces of the same sort, and have kept the coal dust around them altogether, and the result is, the trees are uncommonly thrifty, good bearers, produce very large and fair fruit, and I have seen no appearance of the grub. My plan is to renew the dirt, say once in two years, first scraping away the old dirt, and putting on a bushel or two of fresh. Yours, &c. C. OF STARKEY.

FROGS.

David Baker, of Macedon, Wayne county, relates the following: In sinking a well near his barn, about eight feet below the surface he came to a water course of the size of his arm, or perhaps larger, from which two living frogs issued, of the same species of those found in meadows and moist shady places. He caught them both—placed them on the surface;—one soon died—the other disappeared among the rubbish. Both, when first discovered, leaped about with the usual agility of that species. While the frogs were undergoing inspection, he observed on one of them some drops of fresh blood. On applying his finger to the spot, or near it, he perceived more blood. He soon found, that by placing his finger nail on any part of the animal's skin, the same effect was produced. Fresh blood would follow even the slightest touch. This was repeated several times in presence of *several* witnesses. They were of a whitish color, as though they had been *bleached*. The water course from which their frogships emerged was nearly filled with coarse gravel and sand, so loose as easily to admit the hand or arm. Plenty of water.

About a mile south of where the frogs were found, there is a large spring of fresh fine water. The water which flows from it, runs northerly to within half a mile or so of the spot where the well was sunk, and terminates in a small marsh. This marsh, or swamp, (for it is thickly covered with timber,) reaches to within forty or fifty rods of the well, and most of the season is dry, or nearly free from water. *Query.*—How long may it have been since their frogships have been cheered by the enlivening beams of the sun? and what did they subsist upon during their subterranean peregrinations. I. W. SMITH.

USE OF PLASTER.

MESSRS. EDITORS—I became a subscriber to the Genesee Farmer for the purpose of deriving information, not expecting ever to become one of the contributors to its columns, but some communications upon the subject of Plaster of Paris having appeared in the Farmer, and a *plan* having been given for its use; I have thought it not improper to submit to you, sirs, the method generally adopted by our best farmers here. Plaster is always to be sown on wheat, unless the land is wanted for a spring crop the next year, after clover seed, at the rate of one, two and even three bushels per acre. After harvest the young clover ought not to be pastured much, if any; the next year the clover is suffered to grow as large as it can be, and be well turned over, which is then done, the ground fallowed and the wheat sown; the next year sow the clover seed and plaster, and so on from year to year ad infinitum, the land always getting better, as is supposed by those that practice upon this method. Plaster we think should be sown on pasture. An old farmer, and one that has proved his skill by making a fortune at the business, and who now tills nearly 500 acres, told me to day, that a ton of plaster sown on ten acres of pasture would make it yield as much as fifteen acres under like circumstances without plaster. If you should think any of this worth printing—you will probably hear more from

ONONDAGA.

TAN BARK.

I recollect reading in the New-York Farmer some time ago, that tanner's bark was an excellent manure for a clayey soil—a heavy dressing to be ploughed in—but stating that it would become sterile unless other manure was added; and that it, combined with stable manure or quick lime, would become an active agent on land that had been cropped a number of years in succession, and also that it might be added to the hill of compost and increase its bulk and value.

In May, 1832, I ploughed a small piece of clayey ground, about half an acre, which had been well manured and produced a good crop of corn the year before—put on a good coat of manure from the barn yard, and to add to the value and bulk of the dressing, spread with the manure, on about one half of the ground, five or six loads of tanner's bark, and prepared it as I thought for a good crop of cabbage intended for the early and late market in our city. I put out my largest plants on the part prepared with the tan-bark, and to my no small disappointment, after nursing and hoeing frequently and waiting six or eight weeks, received besides my labor, for my pains, about three dozen yellow stinted heads,—a great proportion of the plants turned quite yellow and died without forming any head at all—while on the other part of the ground, where no tan-bark was put, the plants were green, rank and perfectly healthy. Now, sirs, I would not recommend tan-bark as a manure to any of your subscribers, except it be to the gardeners and nurserymen in this immediate vicinity, who cultivate to supply the same market that I do. Yours, &c. A. BRYANT.

Buffalo Horticultural Garden, April 18, 1833.

AGRICULTURAL SCHOOL.

MESSRS. EDITORS—Having examined the plan of an Agricultural School, published in the Genesee Farmer, current volume, No. 8, I wish to propose some amendments. It has ever been my opinion that property, whether public or private,—whether we act as agents or for ourselves,—should be used with the strictest economy, keeping in view the object to be attained,—the greatest good at the smallest expense. In looking over the items for the proposed School establishment, I do not understand them, or my judgment tells me they need some amendments. I shall now make some observations on the items of cost as laid down in the plan. And, first, the size of the farm and price may answer, provided that the $6000 worth of farm buildings are on it, and ready for operation. The plan for school buildings, I think, is on a large calculation. I shall pass over the library and apparatus. Stock and implements is on a fair calculation. Shop and tools —this item is of more importance than our farmers generally imagine. When I first commen-

ced farming I took a different view of the subject from what many, or almost any, of my brother farmers did. I provided myself with setts of blacksmith's and carpenter's tools, and with them I could make almost all others that I needed, as well as repair my farming utensils. This acquisition I consider worth more to a large farming establishment than is generally imagined; but I must drop this important idea for the present. I shall, however, beg leave to resume the subject, should there be an Agricultural School established in my day. Furniture for school will need amendment. Incidentals I think will bear reducing.

I now come to the annual expenses—and first, as to the salaries of officers and teachers of the school, $5,100. I confess I do not know what branches of learning are to be taught. But I am led to believe that the foregoing sum is sufficient to defray the expense of all the teachers, managers, and laborers, except what may and ought to be done by the 200 scholars. I shall pass by the two next items (mechanics and gardener,) and attend more particularly to the last item, viz: $2000 for servants for the establishment. To this, I object; because I think the appropriation unnecessary and useless. In an Agricultural School, the students should be taught to labor and to wait upon themselves. If they cannot do this they will make but miserable farmers, and had better stay at home. I will add further that my mind is fully impressed with the idea that two-thirds, or at most three-fourths, of the sum proposed, is sufficient for all useful purposes. If we ask more than the legislature think necessary, they may not grant us any. Our public funds should be used with the utmost economy, for we must remember that they are the earnings of the laboring classes.

Having answered the request of the committee as it respects my views of the subject, I will conclude with one observation to the gentleman who complimented me in your No. 8, vol. 3, page 59. He observes that though we differ on one question, we may hereafter agree on many others. Dear sir, if we should all agree on every subject respecting Agriculture, we should need no interchange of opinions, and the Genesee Farmer would soon become useless.

SAMUEL GRIGGS.

Griggsport, March, 1833.

USE OF POTATOES IN BLEACHING.

This method of bleaching consists in substituting, instead of the soap employed in the ordinary process, an equal quantity of potatoes, which have been previously three parts boiled. The linen is placed in a copper, and left to steep for nearly an hour; it is then put into a caldron of boiling water, from which every piece is taken out separately, and rubbed with the potatoes in the same manner as with the soap; after the linen has been well rubbed, rolled and wrung, it is replaced in the caldron along with potatoes boiled to the same degree as above. The whole is left to boil half an hour. The linen is then taken out, rubbed with care, wrung anew, and again plunged into the caldron for a few minutes. It is afterwards rinsed two or three times in soft water, steeped about half an hour in cold water, pressed and hung up to dry. The whole operation may be concluded in about two hours and a half. The linen thus bleached is perfectly white, without the least trace of grease or stains. Kitchen linen, which has always the smell of tallow, becomes perfectly inodorous after having been bleached in this way.—*Biblith. physico-econom.* 1829, *p* 39.

Experiments with Salt as a Manure.

Result of experiments made by Mr. Robert Forbes, *of the Pinefield Nurseries.*

	Manured with salt at the rate of	2 tons per Scots acre, produced	1½ ton per Scots acre, produced	1 ton per Scots acre, produced	½ ton per Scots acre, produced	Moderate dunging.
Onions—sown March 20—taken up, Sept. 6.		lb oz 8 0	lb oz 8 4	lb oz 10 8	lb oz 15 0	lb oz 20 0
Carrots—sown April 23—taken up October 31.		13 0	17 0	20 8	24 0	28 0
Turneps—sown June 19—taken up October 31.		30 0	32 0	30 0	27 0	34 8
Potatoes—planted April 23—taken up September 9.		11 0	11 0	12 0	14 0	24 8
Barley—sown June 5—cut October 9.		2 15½	3 8½	13 10	3 12½	3 15
Mangel Worzel—sown April 12—taken up in Nov.		39 0	40 0	41 0	40 0	48 8

Quarterly Journal of Agriculture.

CHLORIDES.

On the beneficial effects of Chloride of Lime and Chloride of Soda, when applied to external diseases of the animal system.

The Chloride of lime has been found by Mr. Alcock to be an excellent disinfectant. Of the Chloride of Soda he thus speaks:—"The chloruret of oxide of sodium, in common with that of lime, has been shown to possess the valuable property of destroying the most putrid effluvia arising from animal substances, even when these effluvia are diffused to a considerable extent in the surrounding atmosphere; it has also the property, when applied to the substances giving off these effluvia, of arresting or destroying the progress of putrifaction. Not only does it possess this power with regard to dead and detached animal substances, but in those distressing forms of disease in which a part or parts of the human body become dead or putrid, whilst yet attached to the contiguous tissues which preserve their vitality, it has the inestimable power of speedily ameliorating this most lothsome condition, by destroying the putrid odor emanating from the dead portions; and it, moreover. generally arrests the further progress of decomposition, and promotes the more speedy separation of the dead parts from the living, than can be obtained by ordinary means. It very often is capable of changing the nature of malignant, corroding and destructive sores, into the condition of simple ulcers: in many ulcers not malignant, it is capable of greatly hastening the cure. In short, though not an infallible remedy, it is capable under the guidance of medical and surgical skill, sound judgment and experience, of alleviating, and often of totally removing, some of the most distressing and loathsome diseases to which animals are liable.' If the chloride of soda be thus useful in human surgery, it will not, probably, be quite inert in the quadruped. We have used it with manifest advantage in a case of fistulous withers, the putrid stage of distemper in dogs, and ulcerations of their lips and gums. A French veterinary surgeon, M. Lard, in the spring of 1805, cured a glandered horse with it; and another military veterinary surgeon, M. Etienne, was most successful in arresting the progress of several diseases among the troop-horses at the Moulins. The bad forage and situation of this place subjected the horses to attacks of glanders and farcy. Every attempt to arrest these maladies proved abortive, until M. Etienne, used the chloride of soda. He diluted the solution of the chloride with twenty-four times its weight of water, and bathed the ulcers with it, and injected it into the nostrils. The defluxion rapidly decreased, and in thirty-five days the animals returned to their work. The usual means of treating these diseases were continued at the same time, but these were perfectly ineffectual before the chlorid was used.—*Veterinarian.*

BUILDING HOUSES.

We extract from an able article in Silliman's Journal, on *Domestic Architecture*, the following on the subject of building houses, which we think will attract the interest and attention of many of our readers.

Smaller cities and towns have a great advantage in the intervals which occur between the houses, and in New England this advantage is turned to good account. The houses there are frequently built at a distance of twenty or thirty feet from each other, a space of several yards being also left between them and the streets.—The whole of this is planted with delicate shade trees and shrubs, and as the houses themselves are usually painted white, and have small tasteful porticos in front, the effect is the most agreeable that can be imagined. Gentlemen who have traveled extensively in Europe, frequently inform us that they have never seen any thing that, as a whole, would compare in neatness and real beauty with some of the New England villages. It is a beauty in the power of every one of our towns, for the houses in New England, though as comfortable and durable as in other places, cost I believe even less than is usual for edifices of their size. Nearly the whole is effected by the neat little yard, with its verdure, in contrast with the pure white of the facade, and by the little portico over the door. There is another characteristic in these towns, which I should like to see more common in the country; I mean the habit of planting trees along the streets. We should not have all the streets in a town treated in this manner; those for business should be kept clear, but in all others trees should be planted more or less thickly, as taste or convenience will admit. They give a town the appearance of richness and comfort, which cannot be so cheaply procured in any other manner. The elm is our most graceful shade tree, and will be found most suitable when the streets are wide; when narrow, the maple is found to answer best.

As to country houses and their premises, so much depends on the character of the ground, and of all objects, even to a distance of miles, that the subject swells entirely beyond our limits. I must be allowed however, to remonstrate against the warfare which is every where carried on against our noble forest trees, trees which should be estimated by us as far above all price. The first thing done in the new parts of our country, when a spot is determined on for a house, is to cut down all the trees within many rods of it, and then, year by year, the work of destruction goes on, as if the very sight of a forest tree were odious. The house stands alone in the clearing; its inmates, and particularly the children, roasted and browned under the hot summer's sun; but by and by, the nakedness of the situation is felt, and then are planted some Lombardy poplars "all in a row." Now, the trees which we cut down with such an unsparing hand, are the very kind which English gardeners cultivate with the most persevering diligence; and are planted here just as they labor most to plant.—And we too shall cultivate them before long, and shall then think, with the most bitter regret, of the sad destruction which we and our ancestors have made. But in vain; for all the art of man will not be able to restore in any length of time, such glades and thickets, and lawns, as we now possess. When about to build in a new country, we should save, near our house, an acre or two of the forest, and should guard it with the most watchful care. Morning, noon, and evening, it would be an agreeable retreat; its shade would be refreshing in our scorching heats; it would connect us in some measure, with ages long since gone, and would bring before us the wild, but high-souled Indian, his council, his battle song, the war, the chace, the feast and dance; its noble and manly forms would gratify our taste; it would raise our thoughts to Him who is "a shadow from the heat, a strength to the needy in his distress." I say again, let us spare our noble forest trees. Many political considerations might be adduced to show the imprudence of our rude havoc among them, but for these we have not room.—*Amer. Farmer.*

SEASONABLE HINTS.

LUCERNE.

The soil for lucerne must be dry, and inclining to sand with a subsoil not inferior to the surface; unless the subsoil be good and deep it is not fit for lucerne. The ploughing should be deep and thorough, and English writers advise to bury a coat of manure, a foot below the surface. Such is the practice in Guernsey, where lucerne is highly estimated.

Capt. J. SWETT, of Roxbury, has cultivated this grass to good advantage. In September, 1831, this gentleman sent a sample to the Mass. Hor. Soc. and observed, "This grass is of the fourth crop this season, and according to my estimate has produced at the rate of about 3000 lbs. per acre each crop, when cut and dried. I have raised this grass the last three years and find that my horses and cows like it much. I prepare my land in the following manner: have it ploughed twice, harrowed well, and all the weeds and rubbish taken from the land, then sow about 30 lbs. of seeds to the acre."

The quantity of seed made use of in Europe is from 15 to 20 lbs. to an acre, though, Mr. Swett thinks more would be better. The Hon. Robert R. Livingstone has cultivated lucerne with much success. He advises, as the result of his experiments, 1. Never to sow on ground which is not perfectly pulverized. 2. Not to sow till the ground has acquired a degree of warmth friendly to vegetation, viz. in May. 3. To sow with no crop that will probably lodge. 4. If sown with buckwheat to apply no gypsum or other manure till the wheat is off. 5. If the quantity sown is small and the farmer can afford to lose a crop, to give the ground one turn in the autumn, another in April, harrowing fine, and a third the beginning of May, and then if the weather be mild and warm sow, if the ground be in perfect tilth; otherwise give it another ploughing

When lucerne turns yellow it should be mowed, and the plants will come up free from disease. —*N. E. Farmer.*

ROLLERS.

Not one farmer in a hundred has one of those simple and important implements. There is no doubt that the additional quantity of seed that would germinate, and the increased certainty of germination, besides other advantages, would compensate for all the labor and expense in a tenfold degree. One of the first duties before the commencement of spring operations, should be the making of one or more good rollers. It should be generally five or six feet long, and thirty inches in diameter Were rollers more generally used the last line of the following verse would not be so proverbially true:

The farmer's life displays in every part
A moral lesson to the sensual heart,
Though in the lap of plenty. thoughtful still;
He looks beyond the present good or ill;
Nor estimates alone one blessing's worth,
From changeful seasons or capricious earth;
But views the future with the present hours,
And looks for failures, as he looks for showers.
New Eng. Farmer.

TO PREVENT SOWS EATING THEIR PIGS.

Separate the sow from the rest of the swine six or eight weeks before her bringing forth, so that she may become accustomed to her pen. Care should be taken, however, to have her pen kept dry, and well littered; always give them litter enough so as not to be obliged to give any for six days before the time, for nothing disturbs the sow more than an abundance of litter, and which in my opinion has a great tendency to induce her to destroy her young. If the sow is with the other swine till within a few days of her bringing forth, and then separated, she will not get accustomed to her pen, and, by thus being disturbed, she will be pretty sure to destroy her pigs.

I do not think there is any thing in the breed of sows, unless disturbed or mismanaged, and if so I think it very natural for them to destroy their young.

I have known, and it is not at all uncommon for young sows to destroy their first, and protect their succeeding litters; and I have known them to protect their first and destroy their succeeding litters; but in most cases I find that it is owing to disturbance or mismanagement.

Raw salt pork, cut in small pieces, or coarse butcher's meat, and given, will prevent them from eating their pigs. I have seen it given after they had ate two or three of their litter, with good success. But to prevent any mischief it should be kept by them at this time.—*New-England Far.*

SOILING.

It is stated on good authority, that a grass meadow in good heart, mown and eaten green, will, at a rough estimate, produce treble the quantity of milk it would have if pastured, and four times as much as it would have done in the form of dry hay.

IRRIGATION.

Every farmer should have in his yard a cistern, or some similar receptacle for his liquid manure. In our often dry and burning climate, watering grass and other crops would be the means not only of keeping the crops in a growing state until they are supplied with rain, but greatly enrich the land.

WEEDS.

Every farmer should make it a principle of duty to eradicate every useless weed, not only from the injury he may sustain, but from regard to his neighbor and the public. A few seeds from his field may be carried by the wind into those of his careless neighbor, and thus eventually a whole neighborhood become invested.

AGRICULTURAL WORKS.

However well farmers may think they understand their business, yet they would derive benefit from having a work on agriculture, to which they could refer in reference to every operation on the farm. They would always find some hint or suggestion that would be more or less important. The physician, lawyer, and clergyman, think, and justly too, that they can not fill their stations without a library of books for reference. Is farming a calling so much lower that not a single volume is at all necessary?

IMPROVEMENTS.

Every farmer should study out a plan of improving the value of his farm, and should persevere and follow it out, but be careful to avoid undertaking them any faster than he has means and time. If possible, always make the profits of the farm pay for the improvements.

STIRRING THE SOIL IN A DROUGHT.

It is an established opinion, that the more the soil is hoed, harrowed, and ploughed, in dry weather, the better are plants enabled to withstand the want of rain. The recorded effects of frequently stirring the soil are surprising. Excellent crops have thus been obtained, when prospects were most forbidding. It is asserted that when dry weather occurs in the spring, before the roots have extended far, there is still a greater necessity of more frequent hoeing and ploughing. The reasons assigned are, that more of the moisture in the atmosphere is condensed particularly in the night, and that more air, which is a poor conductor of heat, becomes imprisoned in the soil, and thus prevents the heat from penetrating.

TEMPERANCE.

It is with pleasure that we see the temperance cause prospering—not only in this country, but throughout the world. A united effort of numbers and of talent is every day increasing in effect, and producing the most happy changes. The most able and distinguished men of our own and of other countries consider it to their honor to give their names and example, and to exert their talents, in emancipating their fellow creatures from the worst and most cruel slavery. We hope every farmer will duly consider his obligations to society, and throw the weight of his active influence in lessening the amount of human woe.

RELIEF TO CHOKED CATTLE.

A tarred rope covered with silk, or well greased, is recommended to push down substances choking cows. The New-England Farmer gives an instance of laying a cow down with her neck on a block, and breaking an apple in her throat with a blow of a mallet, and thus giving her immediate relief.—*N. Y. Far.*

BREAKING ANIMALS.

Steers—Yoke them carefully, and let them remain quiet until they will eat their food, which generally takes place in the course of one day.—Yoke them again the next, and put them behind a pair of old steady cattle and let them stand till they become familiar with them. This generally takes but one day. The day following yoke them again, and put them behind the oxen as before, put them upon the tongue of a cart or sled. They being now accustomed to the oxen before, they will readily follow without whipping or beating. They will soon become kind and gentle.

Colt.—To break him never strike, but often lead him by the side of another horse, with a bridle. When he walks well bring to a trot after him; then lead him often in a saddle. Then put on a small weight and gradually increase it. Then let one hold and another mount him, and ride after another horse in a ploughed field, till he learns the use of the bit, and will stop or go at your pleasure. By this easy method you will break your colt without breaking his spirit.

Rochester Prices Current.

Wheat, per bu.	87½	Apples,	50a1 00
Flour, per brl.	5 00	Lard, cwt.	8 00
Pork, mess, brl.	14 00	Cheese do	6a8 00
do prime do	10 00	Butter	16a18 00
Beef per cwt.	2a3 00	Hams do	6a7 00
Oats	38	Pot Ash, cwt.	3 50
Corn	56	Pearls,	3 75a4 00
Rye	75	Hides, cwt.	5 00
Barley	50a56	Sole Leather,	19a22 00
Hay, per ton,	9a10 00	Harness do	25 00
Grass Seed,	1 25	Upper p. side, drs'd	2 25
Potatoes,	25a37½	Bundle do	3 00a3 50

FRUIT TREES.

THE subscriber has on hand 152 sorts of the very choicest cultivated Apples, of particularly handsome growths, and 70 sorts of the most esteemed varieties of European and American Pears Also, an extensive assortment of Plums, Peaches, Cherries, &c. at the New York prices.

☞ *CIONS* of the above extensive assortment of Fruit Trees may be had on application at the Rochester Nursery, on the most reasonable terms,

ALEXANDER GORDON

200,000 White Mulberry Trees.

THE Subscriber has on hand and for sale, 200,000 WHITE MULBERRY TREES, of two and three year's growth, which have been transplanted, are in a healthy and thrifty condition, and which he offers for sale at $1,50 to $2,00 per hundred, delivered at the nursery. Also, a few of the Morus Multicaulis, or Chinese White Mulberry. ASA BUTLER.

P. S. All orders, *Post paid* will be punctually attended to.

Suffield, Conn., April 1st, 1833. ap20 f3m

FARMERS, LOOK AT THIS!

THE subscribers manufacture and offer for sale, at their shop, 3 miles south of Caledonia village, Livingston county, *Scotch Ploughs*, which for ease of draught, durability and good service, they will warrant superior to any other plough in use. Said Ploughs are so constructed as to greatly lessen the friction, owing to their gradual taper towards the point, and the gradual manner in which they raise the furrow. By this means the Ploughs are rendered very durable, and their passage through the ground greatly facilitated. They are much more easily held than the common kind, by reason of the form of the handles, and may be drawn by a third less team.

The subscribers, from their long experience in business, with the principal plough manufacturers in Scotland, flatter themselves that they will be able to give perfect satisfaction to all who may favor them with their patronage.

☞ They will also keep on hand, *Patent English Hames*, of superior quality. 16 ft

HUGH WALACE & CO.

Caledonia, April 16, 1833.

LINDLEY'S GUIDE

TO the Orchard and Fruit Garden,—price $1,50—for sale by HOYT, PORTER & Co., Rochester.

MISCELLANIES.

SINGULAR PHENOMENON.

A friend has favored us with the following extract from a private journal kept during a voyage from this country to Madeira, and thence to Calcutta.

"About midnight we were roused from our berths, and desired to repair on deck.—We did so; and what a scene presented itself! Each one of us as he stepped on deck, stood silent and amazed, appalled, yet delighted. *We were floating upon a sea of fire!* The wind was brisk and the waves high, but each wave kindled into a liquid and floating conflagration; it sparkled and glowed like molten iron; and as the crest of the waves broke and fell, it seemed like a shower of fire. The sky was palled with clouds,and the night dark; yet in the reflected glare of the sea, the highest rope in our rigging was plainly perceptible. We were awe-stricken. It seemed, in the silence and fearfulness of the moment, that we were careering in our lonely way upon *an infernal ocean.* As far as the eye could reach, the sea presented the same glowing appearance, heaving and flashing, and throwing its deep red glare far up into the misty dark air. It was awful, ye most beautiful. My imagination can conceive nothing of equal grandeur, and my pen is unequal to the task of its description. It was doubtless occasioned by the singular abundance of phosphoric animalculæ.

The water, when taken up in a bucket, gradually lost its glow, and finally became dark. The sea retained its fiery aspect for several hours, during all which time our ship dashed through it, scattering the spray like sparkles of real fire. I understand that in this portion of the sea, and at this time of year, mariners have often remarked the same singular appearance. At the time we saw it,we were in latitude 7 N. and lontude 17, W."—*Phil. Intelligencer.*

SILK.

Why should silk be scarce in this country? The mulberry grows, the worm feeds the cocoon reel, the raw material in the U. States. Then why is silk scarce in the U. S.? The rockiest of the Connecticut towns yield 70,000 or 80,000 dollars worth of silk annually. Then why is silk scarce? Farmers of New York, Pennsylvania, and Ohio, why? Is it not because you have neglected to raise mulberry trees? The white mulberry will grow, like the apple tree, on all headlands, by the side of all fences; *children* can gather the leaves, feed the worms, and make more money from an acre than men can from an acre of corn or wheat. Mansfield, Conn., excels in this culture only because they have paid more attention to it. They cannot be robbed of their reward.—*N. Y. Whig.*

On the probable application of steam power to various purposes.—It is not improbable, that in nothing will greater changes be effected before the close of the year which has just commenced, than in the purposes to which this tremendous agent will be applied. Every day brings to light some new form in which its irresistible energies may be employed. Ten years ago the idea of substituting a steam engine for a horse as propelling power upon a turnpike, would have been thought chimerical; and the projector who should have talked of traveling frow New York to Philadelphia and back again between sunrise and sunset would have found his schemes listened to with most ominous shakes of the head and shrugs of the shoulders. Yet these things are done daily before our eyes, and nobody seems astonished.

Most of the London presses are worked by steam; logs and marble are sawed, and chickens are hatched by steam; potatoes are boiled, money is coined, whiskey distilled, water pumped, bullets are driven, gun barrels bored, watch cases turned, foul clothes washed, tortoise shell combs mended, anchors hammered, ship's cables twisted, linen is bleached, sugar refined, jellies and soups are made, and houses warmed, by steam; in short there is scarcely an object of human necessity, comfort and luxury, in the production of which some use is not made of this universal and most accommodating of all agents.

No man can set bounds to its utility and the modes of its application. We shall not be surprised to find it, before the year is out employed to extinguish fires, to blast rocks, or in excavating the earth for canals; some of us may live to see men enabled by its assistance to traverse the air, or explore the depth of the ocean; and who knows even but that its energies may in some future age, when man's knowledge and ingenuity shall have reached their highest state of perfection, be successfully directed to the discovery of the philosopher's stone, the north-west passage, and the long-sought for "perpetual motion."—*N. Y. Mor. Post.*

FRESH GARDEN SEEDS.

THE advertisers, SMITH & HOGG, in announcing the completion of their Spring Stock of Seeds, &c., take this opportunity of tendering their thanks to their numerous friends and the public, for the support they have always experienced from them. They feel assured from their personal superintendence, and careful attention to every minutia of their business, extensive and varied as it is, that they offer an assortment embracing in their line every thing of a sound and productive quality. Amongst which will be found the following articles: Winter & Spring Tares, Perennial Ray Grass, Meadow Fesure, Foxtail and Sweet Vernal Grasses, Sainfoin, Lucerne, Trefoil, White and Red Clover, and other Seeds both for Farming and Gardening.

S. & H. would remark that their stock of Seeds has been selected by their Agents in Scotland and England, with their usual care, and they feel a confidence in inviting their friends to a trial.

P. S—All orders will have their best and earliest attention if directed to SMITH & HOGG.

April, 1833. 388 *Broadway, N. Y.*

THE IMPORTED HORSE,

SIR ISAAC.

THIS celebrated Horse of the Cleaveland Bay breed, was sent to this country from England by Admiral Sir Isaac Coffin of the British Navy. Said horse was bred in Yorkshire, (England,) and selected under the Admiral's orders as superior of his breed, and cost when two years old one hundred Guineas—is a beautiful dapple bay, black mane, tail and legs, and stands sixteen hands, and is powerfully built—was sired by the famous horse Molineux.

This breed of horses is highly esteemed for gentlemen's carriages, and particularly for farming purposes. His colts are almost uniformly of a bay color, and is a sure foal getter.

He will stand at the stable of the subscriber in Perrinton, at five dollars the leap, and eight dollars to insure a foal. Good attention paid by,

GIDEON RAMSDELL.

Perrinton, April, 1833. *m*4 8*t*

ISABELLA, Catawba, Winne, Black Hamburgh, &c., &c., to be had in any quantities; good rooted plants, one, two and three years old, and cuttings in large and small quantities, at the Rochester Nursery on Main street.

THE BOOK OF NATURE.

THE Subscriber proposes to issue from the office of the Saturday Evening Post in the month of May next, the first number of a monthly publication, entitled

THE BOOK OF NATURE,

Edited by an association of scientific gentlemen of Philadelphia.

Each number will contain from EIGHT to TEN FINELY ENGRAVED QUARTO COPPER PLATES in the various departments of Natural History, each plate to contain from four to ten distinct figures, making from 50 to 100 figures in each number. With a view to diversify the publication as much as possible, a selection of one plate from each of the following subjects will illustrate each number:

1. Quadrupeds.
2. Birds
3. Amphibia.
4. Fishes.
5. Crustacea.
6. Insects.
7. Vermes& Zoophytes.
8. Shells
9. Botany.
10. Vegetable Anatomy.
11 Geology.
12. Mineralogy.

Each plate will be accompanied with a brief but satisfactory description of every subject or figure it may contain, so written as to convey a good idea of the subject without being either of tresome length, or so technically written, but that all may read with pleasure. Every department of the great field of Natural History will be explored, its beauties and its sublimities unfolded, and the thousand "charms which nature to her votary yields," by the power of the pen, the pencil and the press,will be laid before the eye of the inteligent admirer of the great works of a divine architect. No collection of engravings more valuable could be made, and none we may confidently promise, can for many years be offered to the public at so cheap a rate. More than one hundred of these fine engravings will be given annually; to the man of taste, they will furnish subjects which he can admire from year to year, and present with pleasure to his friends: the artist, and the student in Natural History, may confidently refer to them on all occasions of doubt, while the juvenile portion of society will become acquainted with the varied inhabitants of the air, the ocean and the earth. Geography can be learned only from maps or from travel; "The Book of Nature," without taking us farther than the book shelf or the closet will unfold to us the congregated curiosities of the whole earth. The increased taste for this study,which the public have of late years evinced, induces the Publisher to hope for extensive patronage for a work, which necessarily involves great expenditure, and which will combine great interest, accuracy and beauty.

As the subjects embrace the whole range of Natural History, in order to make it as complete as possible, several scientific gentlemen have been engaged at a great expense to conduct the work, whose united researches, it is believed, will render the periodical extremely valuable.

One great source of the patronage anticipated by the proprietor is from schools and colleges, and as the figures represented will be models of elegance and correct drawing, it will form a work for consultation by the Painter, Engraver, Drawing Master, and Student, and will be of inestimable advantage in the prosecution of their practice. In short, it will be adapted to the capacity and fitted for the use of every class in the community, from the erudite naturalist to the beginner—for the one a book of reference, and for all a source of pleasing study, amusement and instruction.

This work is not got up with a view to temporary popularity, or to a subscription of two years, in about which period it will certainly be completed; it will on the contrary, be so compiled as to be valuable as long as the plates last. After the term of two years the price will be greatly enhanced, thus making the advantage on the side of those who now come forward to patronise an extensive and novel enterprise.

TERMS.

"The Book of Nature" will appear near the first of every month, with 8 to 10 fine engraved plates in each number, making above 100 engravings in each volume, which will contain from five hundred to one thousand separate figures. The price will be five dollars per annum. Agents or clubs remitting $20 will be entitled to five copies: No subscriber will be received without payment in advance, or satisfactory reference. Single number 50 cents, to those who wish to examine the work previous to subscribing. Address, (always *free* of *postage*)

SAM'L C. ATKINSON,
12, Hudson's Alley, Philadelphia.

☞ No subscriptions received for a shorter period than one year.